

REDESCRIPTION OF THE HARPACTORINE GENUS *SOSIUS*
CHAMPION 1899, WITH THE DESCRIPTION OF A NEW SPECIES
(HETEROPTERA: REDUVIIDAE)

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Abstract.—The harpactorine genus *Sosius* Champion is redescribed and illustrated. The male specimen of *S. foliaceus* Champion, from Mexico, is redescribed and the new species, *Sosius australis*, from Brazil and Argentina, is described. Comparative notes and illustrations are given to distinguish the two known species. The name *S. sierrai* Carpintero, *nomen nudum*, should be dropped.

Key Words: Heteroptera, Reduviidae, *Sosius foliaceus* Champion, *S. sierrai nomen nudum*, *S. australis* new species, Brazil, Argentina

Sosius is recognized by the conjointly expanded fifth and sixth connexival segments (Figs. 1, 11). Prior to this study, *S. foliaceus* Champion was the only species recognized in the genus (Maldonado 1990). Males belonging to the genus *Sosius* from Brazil and Argentina differ from the male of *S. foliaceus* and are described herein as a new species.

The round lobes on the posterior margin of the pronotum, one each side of the scutellum, are referred to as scutellar lobes (e.g. Maldonado 1987). This terminology was frequently used by Villiers, but has not been followed by American authors. These are not the result of a concavity on the hind margin as is often thought. Instead they are separate structures found at the opposite ends of a usually straight margin (Fig. 13).

The senior author has seen the specimen of what Carpintero (Carpintero 1981: 90) listed, but never described, as *Sosius serrai* nov. sp. The specimen is in very bad con-

dition and we have decided that it does not belong in *Sosius*.

Repositories are mentioned in the corresponding places in the text. All measurements are in mm.

Sosius Champion

1899 *Sosius* Champion, 2: 275.

Type of genus.—*Sosius foliaceus* Champion, 1899, 2: 275. Mexico. By monotypy.

Diagnosis.—*Sosius* is identified by the short genal spines, subequal head lobes, and the foliaceous expansion of connexivum limited to the last two segments.

Description.—Head about half as long as pronotum, head tumid behind eyes (Fig. 12), narrowing posteriorly into a short neck; subantennal spines moderately long, slightly bent forward; genae with a short anteriorly directed spine; eyes not surpassing upper and lower margins of head; interocular suture straight; first rostral segment about

as long as second and third together; antenna long and slender. Pronotum as long as wide or slightly longer than wide, subpentagonal, hind margin with two short scutellar lobes; anterior lobe unspined, longitudinal sulcus faint anteriorly, deep posteriorly, reaching posterior lobe; posterior lobe with two submarginal discal spines separated by concave depression, moderately long spine slightly above level of humeral angles; scutellum carinate, with obtuse apical projection, disc depressed. Hemelytra barely reaching apex of abdomen (Fig. 11). Abdomen elongate, narrow basally, gradually widening to apex of fourth segment, fifth and sixth abruptly and conjointly foliaceous in both sexes, fifth produced acutely at apical angle, sixth rapidly narrowing behind, foliaceous expansions horizontal or upcurved; caudal margin of last tergum shallowly indented in both sexes. Legs lacking spines; moderately long, posterior femora reaching beyond fourth segment only; apices of femora with 1 + 1 short, blunt, lateral projections; profemur on dorsal view slightly incurved postbasally, incrassate, gradually narrowing to apex; protibia curved, with small preapical spur and small apical pad of setae; tibia and femur beneath with dense short pubescence. Without plica. Upper surfaces of pronotal lobes at same level (Fig. 3). Claws notched basally. Male genitalia: parameres with longitudinal depression, apical marginal spine of hypopygium broad basally. Thorax and abdomen with small, inconspicuous, scattered, setigerous granules; moderately covered with short, adpressed, silvery pilosity; pilosity of last two legs fine, scattered, about as long as diameter of corresponding segment.

Remarks.—Among genera without plica, *Sosius* Champion belongs with those, such as *Doldina* Stål (Neotropical) and *Serendiba* Distant (African), that have rounded humeri beneath slender, acute spines. This character is usually overlooked. Instead, the humeral angles have been routinely called

“spined,” a different character. Consequently it is somewhat difficult to determine relationships and to place many harpactarine genera correctly. The foliaceous expansions of several Old World genera, such as *Astinus* Stål, *Austrarcesius* Miller, *Callilestes* Stål, *Cosmolestes* Stål, and *Mastigonimus* Bergroth, include more connexival segments. The upward or almost horizontal position of the foliaceous expansions in *Sosius* seem not to be sex or species related in the two species studied.

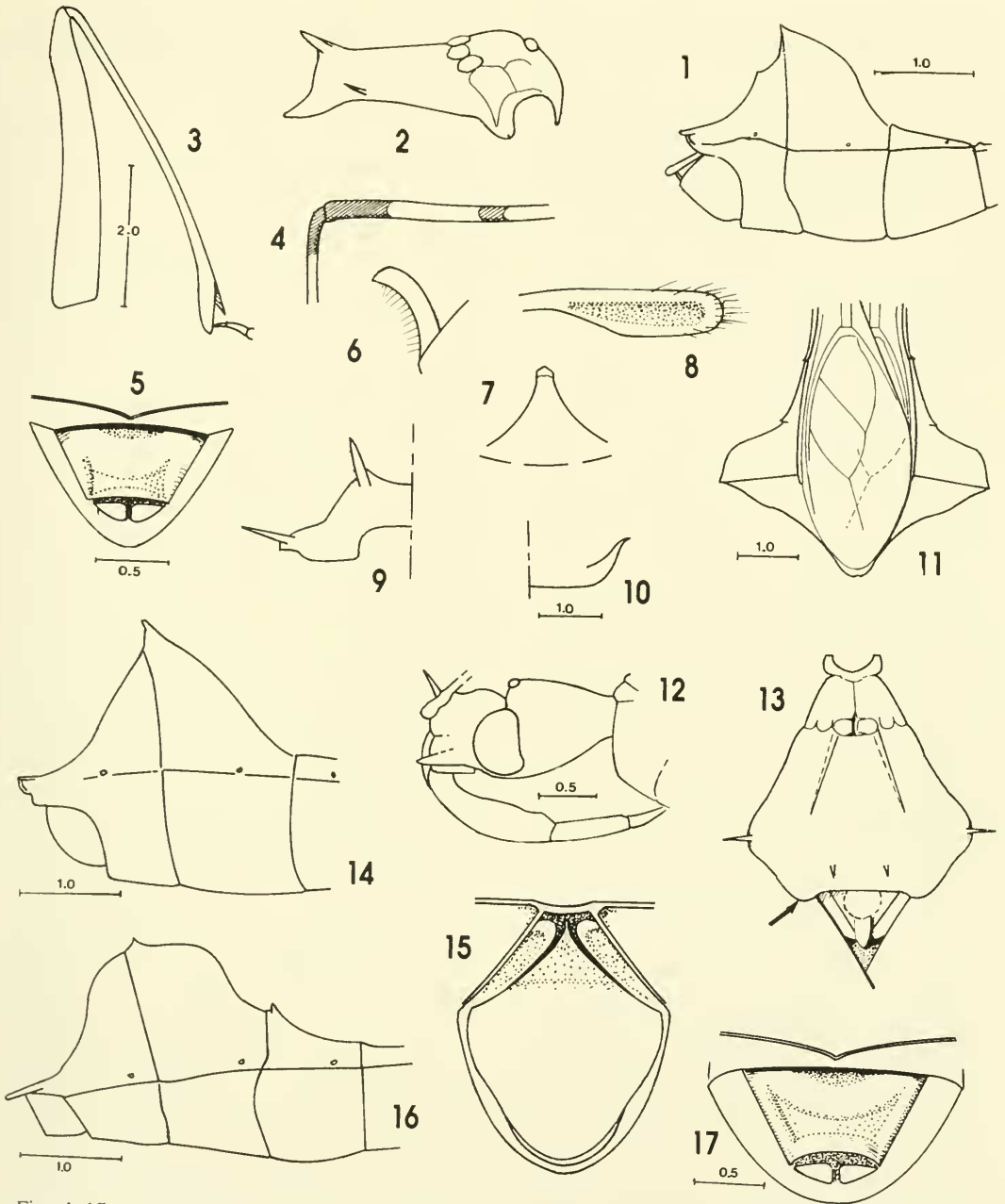
Sosius foliaceus Champion

Figs. 14–17

1899 *Sosius foliaceus* Champion, 2: 275.
Tab. XVI, figs. 25, 25a, male. Mexico.

Redescription of lectotype: Male.—Dark ferruginous: head, pronotum after spines, scutellum, hemelytra except membrane, connexivum above and below, last three abdominal sterna. Reddish brown: anterior lobe of pronotum, pleurae, posterior lobe of pronotum to spines. First antennal segment brown, biannulate with fulvous, second and third brown. *Coxae*: Anterior reddish, other two brown. *Fore legs*: Femora dark brown, flavous preapical annulus, poorly defined yellowish area at about midlength; tibia reddish brown, tarsi flavous. Middle and hind legs flavous, black apically (Fig. 4). First abdominal sternum dark ferruginous, second and third flavous. Pronotal spines black basally and apically, flavous at middle.

Head: Width across eyes 1.31, length 1.81, interocular space 0.68, anterior lobe 1.00, posterior lobe 0.81, anteocular space 0.43. *Antennal segments*: I, 4.50; II, 1.93; III, 3.62; slender, glabrous; subantennal spine as described for genus (Fig. 12), 0.47. Ocelli apart at 4.5 times ocellar diameter (0.13:0.56). *Rostral segments*: I, 1.22; II, 0.74; III, 0.49. *Pronotum*: Anterior lobe width 1.62, length 0.97; posterior lobe width 3.00, length 1.93, disc elevated, limited by diverging longitudinal carinae, surface thinly and faintly



Figs. 1-17. 1-13, *Sosius australis* n. sp. 1, abdomen, lateral, male. 2, fore leg, female. 3, pronotum, lateral, female. 4, hind "knee," female. 5, eighth tergum, caudal, female. 6, hypopygial spine, lateral, male. 7, same, caudal. 8, paramere, outside view. 9, pronotum, caudal view, male. 10, upturned connexival segments, caudal, female. 11, abdomen, dorsal, female. 12, head, lateral. 13, pronotum and scutellum, dorsal, female. 14-17, *Sosius foliaceus* Champion. 14, abdomen, lateral, male. 15, male genital capsule, caudal. 16, abdomen, lateral, female. 17, eighth tergum, lateral.

wrinkled, spines of posterior lobe as in Fig. 9 (same in both species). *Scutellum*: Length 1.25, width 2.18. *Fore legs* (Fig. 2): Femur slightly longer than posterior (3.87:3.81), almost 3× as thick as posterior (0.87:0.31); tibiae shorter than posterior (3.81:4.31); abdomen on lateral view as in Fig. 14.

External genitalia: Parameres and hypopygial spine as in *S. australis* n. sp. (Figs. 6–8 and 15). Total length 12.5.

Female.—Above and underneath blackish brown; membrane translucent, with a golden tinge. *Fore leg*: Coxae reddish brown; femur blackish, internal face with two brownish areas; tibia blackish. Mid and hind legs flavous, apex of femur and base of tibiae as in Fig. 4; pronotum laterally brown; eighth tergum as in Fig. 17. Total length 16.5.

Head: Length 2.06, width across eyes 1.40, interocular space 0.75, anteocular space 0.75, anterior lobe 1.12, posterior lobe 0.93, subantennal spine 0.56, genal spine short, not surpassing clypeus; first antennal segment 6.12, glabrous, others missing. *Rostral segments*: I, 1.37; II, 0.93; III, 0.56; ocelli apart at nearly 5× their diameter (0.13:0.62). *Pronotum*: Anterior lobe length 1.32, width 2.00, anterior angles, sulcus, space between discal spines, surface, posterior margin as in male; posterior lobe length 2.43, width 3.93. *Scutellum* as in male, width 1.12, length 1.00. *Fore legs*: Femora length 5.31, postbasal width 0.92, about 3.5× as thick as posterior (0.31); tibiae shorter than posterior (5.31:6.00). Connexival foliaceous expansions almost horizontal (Fig. 16). Abdomen on lateral view as in Fig. 16; eighth tergum as in Fig. 17.

Lectotype (herein designated) male, MEXICO, Atoyac, Vera Cruz. Labeled B.C.A. Rhync. II; *S. foliaceus* [hand written], in British Natural History Museum. Three other specimens seen by Champion, one from Panama, the other two from Mexico, are herein declared paralectotypes, all in the British Museums. Other specimen examined: female, MEXICO, Apuan de Ca-

bañas, Vera Cruz, H. Brailovsky collector, no date, in JMC. See comparative notes and short key under *S. australis*.

Sosius australis

Maldonado and Carpintero, n. sp.

Figs. 1–3

Male.—Dorsally, metapleura, connexivum, and last four abdominal sterna blackish brown; membrane translucent, with golden tinge. Second and basal half of third abdominal sterna gray; pronotum laterally, mesopleura, middle and hind coxae brown. *Rostrum*: First segment black, polished, second reddish and yellow, third pale brown. *Fore legs*: Coxae reddish brown; trochanter, femur, basal $\frac{2}{3}$ of tibia black; femur dorsally with two inconspicuous fulvous areas; apical third of tibia reddish; hind legs fulvous, same as in nominate form. Spines of pronotum black, yellow tipped.

Head: Length 1.81, width across eyes 1.25, interocular space 0.62; anterior lobe 1.00, posterior lobe 0.81, anteocular space 0.50; antennae missing; subantennal spine 0.50; ocelli apart at 4× their diameter (0.125:0.50). *Rostrum*: I, 1.12; II, 0.68; III, 0.43. *Pronotum*: Anterior lobe length 0.99, width 1.56; posterior lobe length 1.99, width 3.03; posterior lobe with disc elevated, carinae less prominent and shorter than in nominate form, surface more conspicuously wrinkled; scutellum length 1.37, width 2.00, apex longer and sharper than in nominate form. *Fore legs*: Femur slightly shorter than posterior (4.25:4.37), shaped as in nominate form, slightly over 2× as thick as posterior (0.56:0.25); tibia shorter than posterior (4.31:5.25). Male genitalia as in Figs. 6–8.

Female paratype.—Head and pronotum dark ferrugineous, abdomen above dark brown, abdominal sterna reddish brown, membrane with golden tinge. *Fore legs*: femur ferrugineous, two inconspicuous pale brown areas above; tibia dark brown. Middle and hind legs fulvous, blackish apically; short incomplete preapical annulus. Tarsi fulvous, blackish apically. Foliaceous part

of connexivum upturned (Fig. 10); abdomen on lateral view as in Fig. 1.

Head: Length 2.06, width across eyes 1.37, interocular space 0.68, anteocular space 0.62, anterior lobe 1.06, posterior lobe 1.00, subantennal spine 0.43; genal spine as for genus; antennal segments: I, 6.25; II, 2.25; III, 1.12; others missing, glabrous, slender; ocelli apart about $6.5 \times$ diameter of ocellus. *Rostral segments:* I, 1.50; II, 0.93; III, 0.50. *Pronotum:* Anterior lobe length 1.04, width 1.81; posterior lobe length 2.22, width 4.12, disc flat, slightly elevated inside diverging, poorly defined carinae; surface finely, transversely corrugate; scutellar lobes small; scutellum: length 0.75, width 1.12, apical spine 0.56. *Fore legs:* Femora slightly shorter than posterior (5.00:5.12); postbasal width 0.62, $2 \times$ as thick as posterior (0.31); tibiae shorter than posterior (5.18:5.31). Connexival foliaceous extensions horizontal, 10.0 across. Eighth tergum as in Fig. 5. Total body length 15.5.

Holotype.—BRASIL, Nova Teutonia, Santa Catarina, x.16.1948, collector F. Plauman, Lutz leg., in National Museum of Natural History, Washington, D.C. *Paratype female,* ARGENTINA, R. N. Iguazu, Misiones, Nov. 7–9, 19??, D. J. In Carpintero's personal collection.

Comparative notes: The thorax is relatively more slender in *Sosius foliaceus* females (3.75 length, 4.00 width) than in *S. australis* (3.25 length, 4.12 width). However, the thorax is similar in males. The two diverging carinae on the posterior thoracic lobe of males of *S. australis* are less prominent and the corrugations of the lobe more pronounced than in those of *S. foliaceus*. White abdominal sterna occur in Mexican males, whereas abdominal sterna are uniformly dark in both sexes of austral forms. The eighth tergum of the females is different, as in Figs. 5 and 17; the depression on each is shallower and less defined than in the drawings.

KEY TO SEPARATE THE SPECIES IN *SOSIUS*

- 1. Males 2
- Females 3
- 2. Abdominal sterna with white areas; discal divergent carinae of posterior lobe of pronotum poorly defined, corrugations between these relatively thick and conspicuous *S. foliaceus*
- Abdominal sterna uniformly dark; discal divergent carinae of posterior lobe of pronotum well defined, corrugations fine and inconspicuous between these *S. australis*
- 3. Eighth tergum twice as wide as long, subapical depression with lateral margins quite parallel (Fig. 5); thorax slightly wider than long (3.75:4.00) *S. australis*
- Eighth tergum 1.8 times as wide as long, subapical depression with lateral margins converging posteriorly (Fig. 17); thorax clearly wider than long (3.25:4.12) *S. foliaceus*

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